

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number  
**WO 2005/002276 A1**

(51) International Patent Classification<sup>7</sup>: **H04Q 11/04**

(21) International Application Number:  
PCT/EP2004/051191

(22) International Filing Date: 22 June 2004 (22.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
MI2003A 001309 26 June 2003 (26.06.2003) IT

(71) Applicant (for all designated States except US): **MARCONI COMMUNICATIONS SPA** [IT/IT]; Via Lodovico Calda 5, I-16153 Genova (IT).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PRETTEGGIANI, Stefano** [IT/IT]; Via Bartolomeo Carrea, I-16149 Genova (IT).

(74) Agents: **COLLIER, Ian et al.**; Marconi Intellectual Property, Crompton Close, Basildon Essex SS14 3BA (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

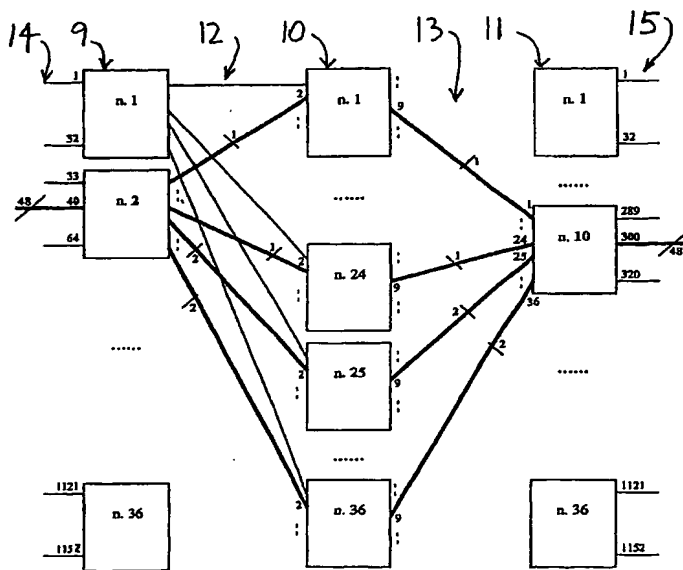
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: SWITCHING NETWORK



(57) Abstract: A switching network forms part of a digital cross-connect for connecting data frames between requested inputs and outputs, and includes an input stage 9, an intermediate stage 10, and an output stage 11, each of which consists of a plurality of switching matrices. Each input stage switching matrix has a link, indicated generally by the reference 12, to each intermediate stage switching matrix and each intermediate stage switching matrix has a link, indicated generally by the reference 13, to each output stage switching matrix. In accordance with the invention, individual timeslots of incoming data frames are independently routed through the switching matrices, reducing the possibility of blocking taking place.



---

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*